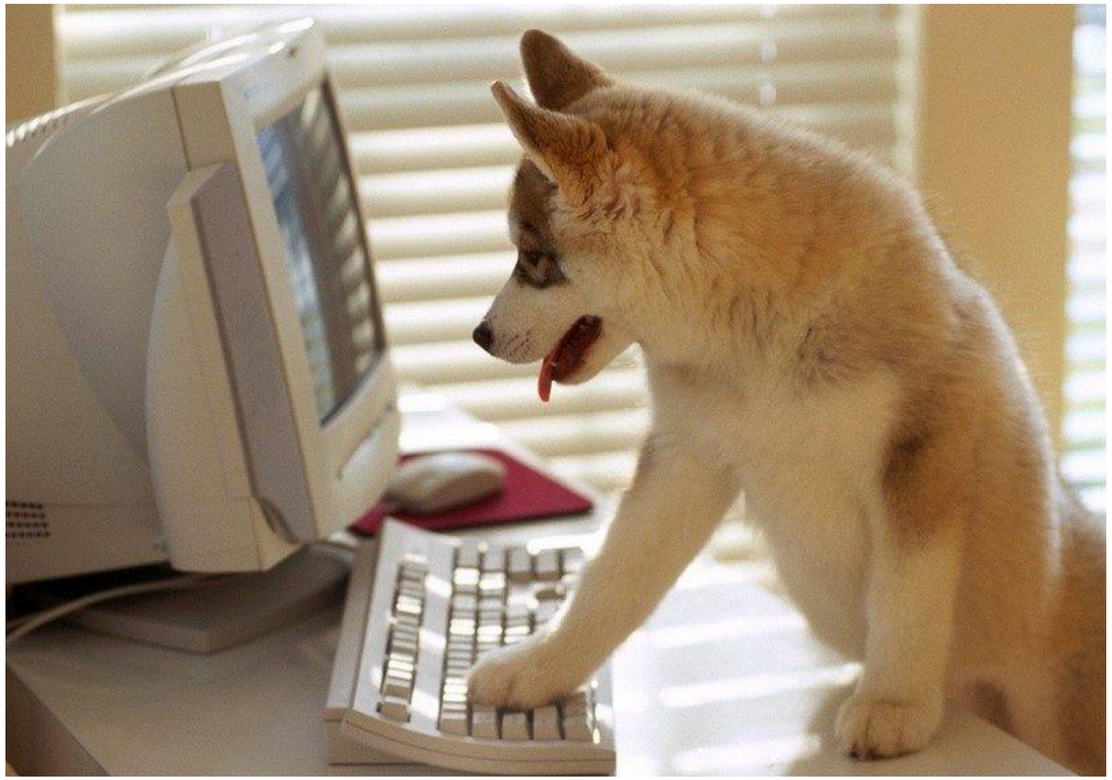
Programming Tutorial [Advanced]



Intent Services

Thread = “*the smallest sequence of programmed instructions that can be managed independently by a scheduler, which is typically a part of the operating system.*” (https://en.wikipedia.org/wiki/Thread_(computing))

Intent Services

In Android:

- UI Thread as foreground Thread (What you see on the screen)
- No heavy or blocking operations!

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Solution: Background Threads :)

Intent Services

You will find many solutions with `AsyncTask` online, but `AsyncTask` is deprecated!
https://www.xda-developers.com/asynctask-deprecate-android-11/

Therefore, we will learn the more recent solution for background execution:
Intent Services

Intent Services

```
public class MyIntentService extends IntentService{

   public ReminderService(String name) {
      super(name);
   }

   public ReminderService(){this("ReminderService");}

   @Override
   protected void onHandleIntent(@Nullable Intent intent) {
      //ToDo
   }

}
```

Intent Services

```
public class MainActivity extends AppCompatActivity{

   Intent intent = new Intent(MainActivity.this, MyIntentService.class);
   intent.putExtra(“someExtra”,”blabla”);
   startService(intent);

}
```

Intent Services

AndroidManifest.xml:

```
<service
        android:name=".MyIntentService"
        android:exported="false" />
```

Intent Services

Busy Waiting:

```
int start = System.currentTimeMillis();
int current = start;
int duration = 5000;
while((current-start)<duration){
   current = System.currentTimeMillis();
}
```

```
try {
      Thread.sleep(5000);
} catch (InterruptedException e) {
      e.printStackTrace();
}
```

Android

In this course we will use Github Classroom

1. Get a Github Account if you don’t have one
2. Go to: https://classroom.github.com/a/xvogkInA (or scan the QR Code with your phone)
3. Authorize Github and accept the assignment
4. Click on the repository